

# A Doctor's Guide for Discussing Measurable/Minimal Residual Disease with Patients

The term measurable residual disease (MRD, also referred to as minimal disease) is used to describe the low-level disease not detectable by conventional cytomorphology.<sup>1</sup>

MRD has become an important factor in treating patients with blood cancers to inform risk assessment and make treatment decisions. Patients who achieve complete hematologic remission after treatment often harbor residual cancer cells in the bone marrow or peripheral blood that can result in relapse. The ability to detect low levels of residual cancer cells has greatly improved. Patients need to understand the importance and implications of MRD testing, access to the tests and how the results can be used. This guide lists questions patients may ask with information physicians can provide at a level their patients can understand.

Discussion regarding MRD should take place when you, the HCP, is considering such testing. Patients may have concerns about having more tests done, the method of testing, the implications of results and practical matters such as timing and costs.

## Sample patient questions to help start the conversation.

Discussion with each patient will be individualized.

### What is MRD testing?

MRD testing is an especially sensitive way to detect very small numbers of cancer cells that remain after treatment for blood cancer. The sample(s) for this test(s) are either from blood draws or bone marrow. Some names of these tests include multiparameter flow cytometry (MFC), real-time quantitative polymerase chain reaction (RQ-PCR) and next-generation sequencing (NGS)-based assays. The samples are tested and analyzed at our medical center lab or sent out to specialized laboratories. The report is then provided to me and I will explain the results to you and we can discuss next steps.

### Is MRD testing used for the type of cancer I have?

Respond as appropriate to the type of cancer the patient has.

### Is MRD testing available as a standard part of treatment for this type of cancer, or is it used only in clinical trials?

Respond as appropriate to type of cancer the patient has.

### Why am I having this test done? Why are results important?

I/ your healthcare team will use these results to determine success of your current treatment as well as the need for further treatment and possibly what the next type of treatment will be best for you.

### When will the results be available?

Depending on where the test is done and which particular test, can be one to two weeks.

### What does it mean to be MRD positive?

MRD positive means that there are still some cancerous cells in the sample (bone marrow or peripheral blood).

### What does it mean to be MRD negative?

MRD negative means that there were no detectable cancer cells at the level of this test's sensitivity.

### Do MRD-negative patients need to continue treatment?

For some blood cancers, the recommendation will be to continue treatment, in some cases that decision will be to discontinue treatment, or to switch to a different treatment. In your case...

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### **If a patient is MRD positive, what is the treatment plan?**

The plan may be to continue treatment or to switch to a new treatment plan (i.e. new medications or hematopoietic stem cell transplant). In your case...

### **If MRD-negative patients become MRD-positive, will they begin treatment immediately, or will treatment be put off until a clinical relapse?**

Often the decision is to change treatments (i.e. new medications or hematopoietic stem cell transplant). In your case...

### **Is MRD status used to determine the number of treatment cycles a patient receives, the timing of a transplant, or when to begin or end maintenance treatment?**

Along with many other factors, MRD status is one of the components of decision-making regarding the treatment plan.

### **Will I have this test again like some of the other blood and bone marrow tests?**

It is possible, based on the results of the current MRD test and next steps in treatment, that an MRD test will be repeated in the future to provide more information regarding the success of treatment and next steps.

### **Do I have to have this test?**

As with all testing, it is your choice, but this is a valuable tool in deciding next steps in your treatment.

### **Are there any side effects from the testing?**

The side effects are minimal and the same as with any blood or bone marrow test (e.g. localized discomfort at testing site).

### **Does it have to be a bone marrow sample or can my blood be used?**

This depends on the particular type of test performed (e.g., is it NGS, MFC, etc. Provide patient with details of which sample will be taken.)

### **Where is the sample sent for analysis?**

Indicate location of analysis- at medical center or sent out for evaluation.

### **How soon will I get the results? Will you contact me?**

Provide patient details of test result timing (usually 1-2 weeks) and who will contact the patient with test results.

### **How much do these tests cost, and will insurance cover the test?**

MRD tests are considered specialized tests and can be expensive. Patients need to be aware that:

- o MRD testing may require prior authorization from an insurance provider.
- o The blood or bone marrow sample for the test may be sent to an out-of-network laboratory which can result in out-of-network fees for patients.
- o Patient should be informed if an MRD sample is being sent out to a laboratory. Advise patient to speak to their insurance provider to find out the cost of MRD testing or call the LLS Information Resource Center. An LLS Specialist can help regarding insurance, copay etc. (see below).

## **Resources For Patients**

*Minimal Residual Disease (MRD) fact sheet*

*Minimal/Measurable Residual Disease (MRD) chart*

*Questions About Minimal/Measurable Residual Disease (MRD)*

**www.LLS.org/booklets**, download or print

Patients can reach out to LLS Information Specialists for more information about MRD, disease and treatment information, co-pay, insurance and other financial support, or to receive free copies of booklets and fact sheets at **800.955.4572** or **www.LLS.org/InformationSpecialists**.

## **Resources For HCPs**

*Facts About Measurable Residual Disease*

**www.LLS.org/CE**

Podcast - *A Deeper Dive into MRD: A Conversation with Gail Roboz, MD*

**www.LLS.org/HCPpodcast**

## **References**

1. Monika Brüggemann, Michaela Kotrova; Minimal residual disease in adult ALL: technical aspects and implications for correct clinical interpretation. *Blood Adv* 2017; 1 (25): 2456–2466. doi: <https://doi.org/10.1182/bloodadvances.2017009845>